

Listing of Claims:

1-10. (Cancelled)

11. (New) A method for optimizing the action of the engine brake in a drive unit in a motor vehicle comprising:

providing an internal combustion engine comprising a crankshaft;

providing an exhaust gas turbine along an exhaust gas flow of the internal combustion engine for the conversion of exhaust gas energy into drive energy, the exhaust gas turbine being operably connected to the crankshaft via a transfer device;

providing a hydrodynamic coupling comprising a primary wheel and a secondary wheel which is disposed in the transfer device, wherein the secondary wheel is coupled with the crankshaft and the primary wheel is coupled with the exhaust gas turbine, at least indirectly;

in an operating state that corresponds to the braking operation with the engine brake, operating the exhaust gas turbine at a first working point, the first working point having a maximum acceptable limiting speed $n_{\max-5}$ of the exhaust gas turbine with a minimum outputtable moment M_5 , and

in an operating state that corresponds to partial load operation or thrust operation, operating the exhaust gas turbine at a second working point, the second working point having a minimum speed $n_{\min-5}$ and a minimum receivable moment $M_{\min-5}$,

wherein adjusting of the first and second working points is conducted via the hydrodynamic coupling, wherein the transferable moment of the hydrodynamic coupling corresponds to the minimum moment $M_{\min-5}$ that can be output or received by the exhaust gas turbine over most of the speed difference that characterizes the slip range, taking into consideration the gear ratio or multiplication of the transfer elements in the transfer device relative to the exhaust gas turbine.

12. (New) The method of claim 11, wherein the hydrodynamic coupling has a constant filling ratio FG, the filling ratio FG having a moment course which lies, over a substantial portion of the slip range, in the region of the minimum moment $M_{\min-5}$ that can be

received or output by the exhaust gas turbine.

13. (New) The method of claim 11, further comprising controlling a filling ratio FG of the hydrodynamic coupling based at least on one of a closed loop and a regulated open loop.

14. (New) The method of claim 13, wherein the closed-loop control or open-loop regulation of the filling ratio FG is regulated by at least one of the following values:

the pressure at an inlet of a working chamber of the hydrodynamic coupling and/or at an outlet of the working chamber of the hydrodynamic coupling,
the pressure difference between the inlet and outlet of the working chamber,
the volumetric flow at the inlet and/or outlet of the working chamber, or
the quantity of working medium discharged.

15. (New) The method of claim 11, wherein the first and second working points are adjusted by closed-loop control of the speed n_5 or a value of the exhaust gas turbine that characterizes this speed.

16. (New) The method of claim 11, wherein the first and second working points are adjusted by open-loop regulation of the speed n_5 or a value of the exhaust gas turbine that characterizes this speed.

17. (New) The method of claim 16, further comprising comparing a value that characterizes the actual speed of the exhaust gas turbine and is continuously determined to the set speed $n_{\text{set-5}}$ that is to be adjusted, and producing a set value for controlling the hydrodynamic coupling in advance as a function of the regulated deviation.

18. (New) The method of claim 11, further comprising detecting the operating state of braking operation with the engine brake in the presence of a speed n_5 of the exhaust gas turbine that is greater than the speed of the crankshaft taking into consideration the

gear ratio or multiplication in the transfer device, and

detecting the partial load operation or thrust operation in the presence of a speed n_5 in the exhaust gas turbine, again taking into consideration the multiplication in the transfer device, that is smaller than the speed n_4 of the crankshaft, excluding full-load operation.

19. (New) A driveline for a motor vehicle comprising:

an internal combustion engine comprising a crankshaft;

an exhaust gas turbine, which is disposed in the exhaust gas flow of the internal combustion engine for the conversion of exhaust gas energy and drive energy, the exhaust gas turbine being operably connected to the crankshaft via a transfer device;

a hydrodynamic coupling comprising a primary wheel and a secondary wheel disposed in the transfer device, wherein the secondary wheel is coupled with the crankshaft and the primary wheel is coupled with the exhaust gas turbine,

wherein the hydrodynamic coupling has a transferable moment, taking into consideration the gear ratio or multiplication in the transfer device, that corresponds to a minimum moment $M_{\min-5}$ that can be received or output by the exhaust gas turbine over a major part of the slip range characterized by the speed ratio between the primary wheel and the secondary wheel.

20. (New) The driveline according to claim 19, wherein

the hydrodynamic coupling is designed as a closed-loop controllable or open-loop regulatable coupling with a variable filling ratio; and

the hydrodynamic coupling has a control device that comprises a setting device for forming the set value for the control of a setting device of the hydrodynamic coupling.

21. (New) A hydrodynamic coupling for a drive unit having a crankshaft and an exhaust gas turbine connected to the crankshaft by a transfer device along an exhaust path of an internal combustion engine, the hydrodynamic coupling comprising:

a primary wheel and a secondary wheel in the transfer device, the secondary

wheel being operably coupled to the crankshaft and the primary wheel being operably coupled to the exhaust gas turbine; and

a control device that comprises a setting device for forming a set value for the control of the setting device of the hydrodynamic coupling, wherein the hydrodynamic coupling is a closed-loop controllable or open-loop regulatable coupling with a variable filling ratio,

wherein adjusting of first and second working points of the exhaust gas turbine is conducted via the hydrodynamic coupling,

wherein a transferable moment of the hydrodynamic coupling corresponds to a minimum moment $M_{\min-5}$ that can be output or received by the exhaust gas turbine over most of a speed difference of a slip range, and

wherein the hydrodynamic coupling has a constant filling ratio FG, the filling ratio FG having a moment course which lies, over a substantial portion of the slip range, in the region of the minimum moment $M_{\min-5}$ that can be received or output by the exhaust gas turbine.

22. (New) The coupling of claim 21, wherein the filling ratio FG is regulated by at least one of the following values:

the pressure at an inlet of a working chamber of the hydrodynamic coupling and/or at an outlet of the working chamber of the hydrodynamic coupling,
the pressure difference between the inlet and outlet of the working chamber,
the volumetric flow at the inlet and/or outlet of the working chamber, or
the quantity of working medium discharged.

23. (New) The coupling of claim 21, wherein the first and second working points are adjusted by closed-loop control of a speed n_5 of the exhaust gas turbine.

24. (New) The coupling of claim 21, wherein the first and second working points are adjusted by open-loop regulation of a speed n_5 of the exhaust gas turbine.